

REWRITTEN TITLE WITH MARKINGS SHOWING CHANGES

COMMAND AND CONTROL SYSTEM AND METHOD FOR CONTROLLING MULTIPLE
TURBOGENERATORS USING A SELECTED CONTROL MODE

REWRITTEN CLAIMS WITH MARKINGS SHOWING CHANGES

1 1. (Amended) A command and control system for a plurality of turbogenerators,
2 comprising:

3 a plurality of individual turbogenerators, each of said plurality of individual
4 turbogenerators having a controller;

5 a command and control system bus, each of said plurality of individual turbogenerator
6 controllers operably connected to said command and control system bus;

7 a plurality of disconnect switches, a disconnect switch provided in each operable
8 connection of an individual turbogenerator controller to said command and control bus;

9 a bi-directional power meter;

10 a master controller operably associated with each of the turbogenerator controllers and
11 with said bi-directional power meter to control operational sequencing of the individual
12 turbogenerators in a selected control mode; and

13 a junction box operably connecting an electric utility; said power meter, the output of the
14 plurality of individual turbogenerators, and a load.

1 6. (Amended) The command and control system of claim 1 wherein said operational
2 sequencing [selected control mode] includes the starting, stopping and loading of each of said
3 plurality of individual turbogenerators.

1 9. (Amended) The command and control system of claim 6 wherein the operational
2 [start] sequencing is based on the use time of each of said plurality of individual turbogenerators.

1 12. (Amended) The command and control system of claim 6 wherein the starting of
2 each of the plurality of turbogenerators is selected [staggered] to minimize the total power draw
3 requirements.

1 16. (New) A control system for a plurality of turbogenerators, comprising:
2 a plurality of turbogenerators, each of said plurality of individual turbogenerators having
3 a controller;

4 a control system bus, each of said plurality of turbogenerator controllers operably
5 connected to said control system bus;

6 a switch provided in each operable connection of an individual turbogenerator controller
7 to said control bus;

8 a power meter;

9 a master controller operably associated with each of the turbogenerator controllers and
10 with the power meter to control operational sequencing of the individual turbogenerators in a
11 selected control mode; and

12 a junction box operably connecting an electric utility; said power meter, the output of the
13 plurality of individual turbogenerators, and a load.

1 17. (New) The control system of claim 16, further comprising:

2 a timed relay operably associated with said control system bus, said power meter, and
3 said junction box to prevent the feedback of electrical power to the electric utility.

1 18. (New) The control system of claim 16, wherein said selected control mode is a
2 utility load following mode in which utility power consumption and turbogenerator power
3 generation are compared to produce an error signal which is integrated over a defined specified
4 time to produce a power demand signal.

1 19. (New) The control system of claim 16 wherein said selected control mode is a
2 utility base load mode in which a defined utility power signal and the power meter signal are
3 compared to produce an error signal which is integrated over a defined specified time to produce
4 a power demand signal.

1 20. (New) The control system of claim 16 wherein said selected control mode is a
2 base load mode in which the power meter signal and a base load demand signal are compared to
3 produce an error signal which is integrated over a defined specified time to produce a power
4 demand signal.

1 21. (New) The control system of claim 16 wherein the operational sequencing
2 includes a start sequence, a stop sequence and a load sequence.

1 22. (New) The control system of claim 16 wherein said master controller includes a
2 sequencing and control logic system.

1 23. (New) The control system of claim 22 wherein said sequencing and control logic
2 system includes a proportional-plus-integrated control to regulate power demand.

1 24. (New) The control system of claim 21 wherein the operational sequencing is
2 based on the use time of each of said plurality of individual turbogenerators.

1 25. (New) The control system of claim 24 wherein the turbogenerator with the least
2 use time is started first.

1 26. (New) The control system of claim 24 wherein the turbogenerator with the most
2 use time is shut down first.

1 27. (New) The control system of claim 21 wherein the start sequence of each of the
2 plurality of turbogenerators is selected to minimize the total power draw requirements.

1 28. (New) The control system of claim 21 wherein a turbogenerator is automatically
2 restarted in the event of a fault shutdown.

1 29. (New) The control system of claim 21 wherein an inactive turbogenerator is
2 automatically restarted in the event of a fault shutdown of an active turbogenerator.

1 30. (New) The control system of claim 1 wherein said selected control mode includes
2 power hysteresis bands, rate limits and set points integrated over time.

1 31. (New) The control system of claim 16 wherein the switch is a disconnect switch.

1 32. (New) The control system of claim 16 wherein the power meter is a bi-directional
2 power meter.